

### Abstract

An embodiment is a catheter comprising a first elongate shaft having a proximal  
5 end, a distal end and a first lumen therethrough, a wire having a proximal end and a distal  
end at least partially disposed in the first elongate shaft, the distal end extending distally  
from the first elongate shaft, and a motion control apparatus connected to the proximal  
end of the wire, further comprising a device attached to the distal end of the wire for  
changing the shape of an embolus, wherein the device is configured to change the shape  
10 of the embolus to unclog a distal catheter lumen.